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ABSTRACT

The 1983-1984 annual report of the Planning and Grants Committee of the Council for Higher Education in Israel is presented. Reports by the Chairman and Director-General note the severe budgetary cuts to higher education. The main activities of the Committee and its subcommittees are identified, along with 1983-1984 recommendations to the Council. Major developments in the following institutions are summarized: The Hebrew University of Jerusalem; The Technion (Israel Institute of Technology); Tel-Aviv University; Bar-Ilan University; the University of Haifa; Ben-Gurion University of the Negev; the Weizmann Institute of Science; Everyman's (Open) University; the Jerusalem Rubin Academy of Music and Dance; Bezalel (the Academy of Arts and Design), Jerusalem; Jerusalem College of Technology; Shenkar (College of Textile Technology and Fashion); and the regional colleges. Appendices provide information on: students in universities, 1969-1984; students in nonuniversity institutions of higher education, 1982-1984; university and nonuniversity degree recipients; university and nonuniversity staff; university and nonuniversity budgets; the development budget; research grants; foreign students; and students in pre-academic preparatory courses. (SW)

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THE PLANNING AND GRANTS COMMITTEE

Annual Report No. 11

Academic Year 1983/84

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
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Presented to

THE COUNCIL FOR HIGHER EDUCATION

May 1985

Translation from Hebrew and Editing:

Yael Atiyah

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THE PLANNING AND GRANTS COMMITTEE (PGC)

Members:

1. Prof. Haim Harari - Chairman
2. Prof. Yehudith Birk (until 28.2.1984)
   Prof. Kenneth Preiss (as of 1.3.1984)
3. Mr. Itzhak Mann (until 12.5.1984)
   Mr. Gurion Meltzer (as of 13.5.1984)
4. Mr. Simha Soroker
5. Prof. Daniel Sperber
6. Prof. Gabriel Warburg (until 30.6.1984)
   Prof. Nehemia Levtzion (as of 1.7.1984)

Observer:

Mr. Shmuel Bendor - Consultant

Administration:

Mr. Gedalia Yaakoby (until 30.4.1984)
Mr. Simcha Landau (as of 1.5.1984) -
- Director General

Miss Ruth Silberberg - Deputy Director-General and i/c Development Budget

Mr. Dov Keren-Ya'ar - Secretary-General, Council for Higher Education and PGC

Mrs. Techia Karcz - i/c Ordinary Budgets

The Terms of Reference of the Planning and Grants Committee, as set forth in Government Decision no. 666 of June 5, 1977, are as follows:

1. To be an independent body coming between the Government and the national institutions, on the one hand, and the institutions of higher education, on the other, in all matters relating to allocations for higher education. The Government and national institutions shall refrain from receiving requests or recommendations from the institutions of higher education or from any other source. They shall also refrain from allocating funds to an institution of higher education other than on the recommendation of the Planning and Grants Committee.

2. To submit the ordinary and development budget proposals for higher education, taking into account the needs of society and the State, while safe-guarding academic freedom and assuring the advancement of research and learning.

3. To have exclusive authority to allocate to the institutions of higher education the global approved ordinary and development budgets.

4. To submit to the Government and to the Council for Higher Education plans for the development of higher education, including their financing.

5. To encourage efficiency in the institutions of higher education and coordination between them with a view to preventing superfluous duplication and encouraging economy.

6. To ensure that budgets are balanced and that there are no deviations from them.

7. To express its opinion to the Council for Higher Education before the Council reaches a decision on the opening of a new institution or a new unit having financial implications in an existing institution. The considered opinion of the PGC will include answers to the following questions:
   a. Is there a need for the new institution or for the new unit?
   b. What are the financial implications of opening the new institution or the new unit?
   The PGC will determine whether the opening of the new unit has or has not financial implications.

THE CHAIRMAN'S REVIEW

The State of Israel is at present in the midst of a deep financial crisis that threatens every sector of the economy and society. Opinions vary as to the steps necessary to halt the decline, extricate ourselves from the crisis and renew our economic growth. However, one basic principle is agreed upon by all: our only chance to prosper and flourish is contingent upon efficient and correct utilization of our human resources and especially on developing and deepening our scientific and technological capabilities.

The entire world has, in fact, been undergoing a revolution in recent years, focusing on computerization, information, electronics, automation and communication. In other fields of science rapid changes are taking place. At the same time a mutual influence is forming and growing between science and technology on the one hand and various areas of administration, economics and economy on the other. The scientific revolution is passing at a great speed, leaving behind it anyone who cannot adapt and adjust to it or anyone who cannot make an important contribution to it. This is as true for the individual in his own society or country as it is for entire nations and their place in the world.

For the first time in the history of mankind we face a situation where scientific, technological and administrative knowledge are more important, economically, than raw materials. Contrary to predictions of a decade ago, countries such as Japan are in the midst of an impressive economic growth surge, while countries such as Saudi Arabia are weakening. The reason is clear: Japan's resources, namely human brains, surpass the economic value of Saudi Arabia's natural resources.

Israel's principal treasures are her human resources. Our scientific talents in all fields of human knowledge are equivalent to oil fields and coal deposits. The new raw materials of the scientific

revolution - human brains - have already been discovered here. No surveys or drillings are needed to find them. All that remains is to bring them to the surface and activate them. This can and must be done by the entire educational system, from elementary school to higher education, and by scientific research and technological development.

If a gigantic oil-field were discovered in Israel, would anyone dare to claim that there is no budget to pump the oil to the surface? Would the Government cut its budget for pumping the oil by 20% in one year?

Higher education is charged with preparing academic manpower in all fields, including basic scientific research and a major part of applied research. Three-quarters of government expenditures for higher education are directed to the sciences and technology. All fields of Israeli science were born and bred in the institutions of higher education. Most of the engineers and scientists who work to further industry and defense were educated and trained in institutions of higher education in Israel. All state agencies involved in these areas, including the Ministry of Science, the Israel Academy of Sciences and Humanities, the National Council for Research and Development and, above all, the Council for Higher Education, repeatedly proclaim the urgent necessity of deepening and expanding basic scientific research. All those involved in industry and defense reiterate again and again the urgent need to increase the number of engineers and scientists trained in all fields. These are the raw materials and means of production of the new scientific revolution. This revolution is in our midst right here and now. We have the raw materials. No search is needed. We only require the relatively modest means necessary to bring them to the surface and these means must increase each year.

In 1983/84 the Government allocation to higher education was cut at a rate that was unprecedented in this or any other system in the

country. For the first time government participation in the universities' budgets was less than 1% of the total government budget. The diminished budgets approved for the universities at the beginning of 1983/84 were later cut by a further 16% in the middle of the academic year.

Intentionally or unintentionally, deliberately or accidentally, the Government and the Knesset (Parliament) decided not to invest the sums necessary to maintain the existing situation in higher education. The welcome increase in the number of students indeed continues but the teacher-student ratio has worsened, the level has been lowered and budgets for equipment and research have gradually disappeared. It is hard to evade the conclusion that the minimal investment needed to utilize our most vital raw material is not being invested. We have long since ceased talking of expansion, progress or raising the level. We are trying, unsuccessfully, to mark time, while the speeding scientific train passes us by at a great speed.

1983/84 was the most difficult year in the history of the Planning and Grants Committee (PGC). The five-year development program presented by the PGC at the end of 1982/83, largely based on maintaining the status quo, with only a modest natural increase based on the rate of population growth, was shattered by an irrational reality of cutbacks, delays in funding and errors in updating budgets. The administrations of the universities have themselves reached a stage approaching total collapse. The PGC's supervision and control have necessarily become ineffectual. The result is additional deficits amounting to tens of millions of dollars: for most of them the Ministry of Finance is clearly responsible and for some the administrations of some of the institutions.

With the formation of the new Government in the last days of 1983/84, the PGC decided to request from the Government an immediate budgetary supplement and from the universities - a further reduction in activities so that the 1984/85 academic year could proceed with

balanced budgets and a return to reasonable management and control. We cannot, unfortunately, speak of an improvement in quality, extension of research or an expansion of vital scientific and technological fields. It is also difficult to return to long-range planning. We are trying, first and foremost, to return to a state of minimal control and short-term planning. The PGC made it abundantly clear that it had no intention or possibility of continuing to function in 1984/85 if these requirements are not met. Both the Government and the institutions of higher education met these minimal requirements at the beginning of 1984/85. If, indeed, the worst is behind us - only the future can tell.

* * *

I wish to thank the members of the PGC and its professional staff for their support, advice and encouragement in this difficult year.

In 1983/84 the PGC parted from its founding Director-General, Gedalia Yaakoby, and welcomed his successor, Simcha Landau. I wish to express once again my deep appreciation for the work of Mr. Yaakoby and warmly welcome the new Director-General.

At the end of 1983/84 the PGC parted from the Chairman of the Council for Higher Education, the Minister of Education and Culture Mr. Zevulun Hammer, who was a pillar of strength during his seven year tenure of office. I would like to express my personal gratitude and deep appreciation for his contribution to ensuring the independence of the higher education system.

We warmly welcome the new Minister, Mr. Yitzhak Navon, who will undoubtedly follow the fortunes of higher education in the trials which lie ahead.

May 1985

Haim Harari

THE DIRECTOR-GENERAL'S REPORT

This report for 1983/84 is the eleventh annual report of the PGC and the first of its second Director-General, following the retirement in April 1984 of Mr. Gedalia Yaakoby.

It has fallen to my lot to take up my post in the second financial year of uncertainty in higher education. As our sages say - "where there is no bread there is no Torah".

In 1983/84, as in 1982/83, two main tasks confronted the PGC. On the one hand it had to persuade the Government to abstain from reducing allocations to a degree adversely affecting the proper functioning of higher education, its quality and its ability to admit additional students in general and in preferred fields in particular. On the other hand, the PGC had to persuade the institutions to adapt their activities to a reduced level of allocations, at a time when salary increments had altered the existing ratio between expenditures on wages and other expenditures. The PGC can claim only partial success in both these tasks. The severe budgetary cuts left the institutions with deficits once again in 1983/84.

The problems facing the institutions in adapting to the budget cuts were compounded by rapid inflation. Budgetary planning and supervision of expenditures became very difficult. The results of these were felt, not only in the internal management of the institutions, but also in the quality of data supplied by them to the PGC.

It was only at the beginning of 1984/85 that a certain degree of stability in the volume of resources was achieved, enabling the administrations of the institutions to function normally, and enabling the PGC to emphasize resources as its subject of priority. The problems of previous deficits remained, for the time being, unsolved.

These two trying years have taught the PGC that it must be more resolute in insisting that the institutions confine themselves to a balanced framework of activities, agreed upon with and controlled by the PGC.

An effort was made to determine patterns of work which would fulfill at one and the same time the requirements of the administrations of the institutions and those of the PGC. The PGC gave highest priority to this, both for its current work and for the planning process. Consistency and predictability in the allocation of resources by the Government are an essential condition for planning the volume of such resources, reflecting the recognition by the Government of the fact that only investment in human resources will ensure the future cultural, scientific and economic level of the country.

Even though the independent resources of the institutions, including tuition fees, are important in themselves and can serve as a shock absorber in time of need, their increase, even if rapid, cannot ensure continued development. The primary function of the PGC is, in fact, to plan the development of higher education in accordance with established needs, while making efficient use of the resources available to it.

In the course of discussions on the level of budget allocations to higher education, the Government, on the initiative of the Minister of Education and Culture, devoted on April 8, 1984 a session to higher education, much to the satisfaction of the PGC.

Following the session, a ministerial committee was appointed to formulate operative recommendations on the crisis in higher education. The PGC prepared the background material for this committee and on June 24, 1984 the Ministerial Committee recommended:

a. to increase the budget allocations to higher education;
b. to draw up a long-term plan for the gradual elimination of the accumulated deficits in the institutions of higher education;
c. to establish a list of preferred subjects in the institutions of higher education and the desired increase in student numbers in each subject;
d. to introduce in the budget for higher education a natural-growth factor, to be determined by the Government, based upon the optimum increase in the number of students.

The PGC continued in 1983/84 to increase, relatively and necessarily moderately, its earmarked allocations. These allocations give preference to excellence.

These preferences are of three categories:

- encouraging the growth of endowment funds and thus decreasing dependence on government allocations;
- increasing research activity and the absorption of outstanding staff members in the system in general and in preferred subjects in particular;
- avoiding the erosion of existing investments in infrastructure - primarily of scientific equipment, computers and libraries - and their renewal.

Among the academic subjects discussed during the year, the following merit special note: the continued academization of teacher training colleges, the academization of para-medical professions and the framework for the training of engineering and technological manpower.

The PGC was forced to devote its time to another subject, less constructive if no less important - namely wages and labor agreements. Different aspects of this problem were discussed at length: the ramifications of an arbitration decision and the voluntary pay-cuts of members of the academic staffs. The PGC's position was clear cut:

wage agreements must be coordinated with the Ministry of Finance; wages should be comparable with those in relevant sectors of the economy and, at the same time, reflect the financial capabilities of the higher education system and its priorities. Deviations should be prevented in the future.

My personal thanks to Professor Haim Harari and the other members of the PGC and the staff for their dedicated work and for their efforts to ease the task of a new Director-General.

I would also like to thank all those with whom the PGC is associated in government institutions and the institutions of higher education for their helpful and friendly cooperation.

Simcha Landau

A. THE PLANNING AND GRANTS COMMITTEE

The Work of the Committee

The PGC operates within three different frameworks:

Plenary sessions: Between October 1983 and September 1984 the PGC held 32 sessions, including two joint meetings with the Committee of Heads of Universities and a visit to Jerusalem College of Technology.

Sub-committees: These included sub-committees for:

- allocations to endowment funds;
- university libraries;
- computers;
- scientific equipment;
- Yigal Allon Fellowships;
- The Institute for Desert Research;
- foreign students;
- natural science collections.

Members of the PGC serve as chairmen or members of most of the sub-committees. Other members are selected according to their area of specialization from among the senior staffs of the universities, industry or public service.

Administrative staff: The PGC's administrative staff, which is composed of 19 1/4 posts, is divided into three sub-units, according to the different aspects of the PGC's work:

- planning and development, including statistics and academic planning;
- the ordinary budget, including wages and matching allocations;
- the secretariat of the Council for Higher Education and the Planning and Grants Committee is responsible for coordinating and activating sub-committees.

The administrative budget for 1983/84 amounted to approximately 123.3 million Israeli Shekels (IS).

The PGC and the Council for Higher Education

The PGC is represented in the Council for Higher Education by its Chairman, who is ex-officio a member of the Council. He regularly informs the Council of the PGC's activities.

The PGC's role in Council deliberations: The PGC advises the Council in such matters as the approval of new units or accreditation of new institutions, taking into consideration the financial implications and the needs of the State.

Recommendations on new units: In 1983/84 the PGC presented its recommendations to the Council on the following:

- studies for the bachelor's degree in management at Ben-Gurion University;
- studies in civil engineering in construction management at Ben-Gurion University;
- a joint master's degree program in economics at the University of Haifa and the Technion;
- a Ph.D. program in industrial engineering and management at Ben-Gurion University;
- a master's degree program in nursing at Tel-Aviv University;
- academization of nursing and physical therapy studies at Ben-Gurion University;
- the application of Tel-Aviv School of Art for a license to open an institution of higher education;
- the affiliation of the Kaplan Hospital School of Nursing to the School of Nursing of the Hebrew University;
- the request of Ben-Gurion University to authorize it to award the master's degree in various departments of the Faculty of Humanities and Social Sciences.

In addition, the PGC discussed the following:

- the establishment of the School of Veterinary Medicine within the Faculty of Agriculture of the Hebrew University;
- academization of the course of study in physical education at the Kibbutz Movement Teachers Training College;
- an initiative to open a faculty of law at the University of Haifa;
- the report of the Committee Appointed to Examine the Needs of the State in Training Academic Personnel in Medical Administration;
- the study of geriatrics in the universities.

B. THE HIGHER EDUCATION SYSTEM IN 1983/84

The higher education system in 1983/84 consisted of:

- 7 university institutions (5 universities; the Technion-IIT and the Weizmann Institute of Science);
- Everyman's (Open) University;
- 4 non-university institutions of higher education, accredited and authorized to award the bachelor's degree;
- an academic course in the Ruppin Institute of Agriculture, accredited and authorized to award the bachelor's degree;
- 5 teacher training colleges, licensed or accredited, either fully or partially;
- an academic course in the College of Administration that has a license to open an maintain an institution of higher education but is not yet authorized to award academic degrees.

A list of the institutions of higher education appears in Appendix 1.

In 1983/84 there were approximately 71,000 students in institutions of higher education, 64,600 of them in universities. In Everyman's (Open) University there were 13,618 students, equivalent to about

3,400 full-time students in a regular university. There were about 3,000 students in other institutions of higher education (see Appendix 2).

Approximately 11,000 students received academic degrees, 72% of them the bachelor's degree, 25% the master's degree and about 3% the Ph.D. or its equivalent. For statistical data on recipients of degrees see Appendix 3.

Statistics on staffs in institutions of higher education appear in Appendix 4.

Major Developments in the Institutions of Higher Education*

The Hebrew University of Jerusalem: During the past two years the following developments took place:

Computer Sciences - Operating as of 1983, this department has developed considerably. Despite rigorous entrance requirements there has been a significant increase in the number of students.

Applied Sciences - the committee appointed in 1984 to look into ways and means of advancing the area of biotechnology, recommended that a graduate program of studies be established to confer degrees in biotechnology. This now awaits the approval of the academic bodies concerned.

Veterinary Medicine - The Steering Committee setting up the School for Veterinary Medicine completed its work. The school, the only one of its kind in Israel, is scheduled to open in the 1985/86 academic year, and a Curriculum Committee has been established to supervise its program of studies.

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* Information in this section was supplied by the institutions

The faculties have adapted their respective programs of studies to the new semester system coming into operation at the start of the 1985/86 academic year.

Replacement of the University's central computer has resulted in a significant increase in computing power.

A new policy regarding academic appointments over the next few years was crystallized to enable, under the present difficult circumstances, the appointment of academic staff according to University priorities.

Impetus was given to medium and long term academic planning, based upon development plans formulated by each of the faculties and subsequently discussed in the Academic Policy Committee.

Efforts were intensified to extend the framework of external bodies funding research at the University. A number of research centers were established to encourage interdisciplinary research and to assist in obtaining further funds.

The Technion - Israel Institute of Technology: There has been a slow increase in the number of undergraduate students at the Technion during the last three academic years (1982/83, 1983/84, 1984/85). The number of graduate students has not changed. Together with this growth, there was a radical redistribution of students among the faculties. In the Faculties of Electrical Engineering, Computer Sciences, Mechanical Engineering and Industrial Engineering and Management there were very significant increases in the numbers of students. At the same time, in the Faculties of Civil Engineering and Architecture and Town Planning there were slight decreases. This is in response to the change in market demand. All well-qualified applicants cannot yet be accepted to the Faculties of Computer Science, Electrical Engineering and Industrial Engineering and Management, as it is not possible to increase the numbers of students in these faculties due to budgetary problems and lack of teachers.

Despite budgetary restrictions, computerization has advanced over the last two years. The main-frame computer has been replaced, some mini-computers have been added and the Technion has initiated its program for micro-computers. The aim of this program is to make the personal computer a teaching tool in most of the engineering courses. As a first step, we established libraries of micro-computers in five faculties.

The courses in computer-aided-design and engineering graphics have been considerably developed as a result of acquisition of suitable programs and graphic printers for the Faculties of Mechanical Engineering, Aeronautical Engineering, Architecture and Town Planning, Chemical Engineering and Civil Engineering.

There was a virtual halt in construction in the years 1983/84 and 1984/85 and our efforts are now concentrated on building student dormitories.

The accomplishments of the past three years were made under the shadow of severe budgetary restrictions, cutbacks on personnel and a reduced operating budget. Despite all these difficulties, the Technion, taking into account the needs of Israel, has prepared a plan for an increase in overall undergraduate enrollment by 25% and for growth of the Faculty of Electrical Engineering by 50%.

Tel-Aviv University: In 1983/84 the University's academic authorities approved new master's degree programs in the following subjects: industrial engineering; town planning; public policy; the history and philosophy of science; musical education and the teaching of music; nursing; occupational health; the teaching of Arabic. Some of these programs still require the approval of the Council for Higher Education.

Four research centers and institutes were established: the Center for Energy Studies; Institute of Computer Sciences; Institute for Research of Electronic Devices; the Dayan Center for Middle Eastern and African Studies (which encompasses the Shiloah Center). New academic chairs were established in various research fields.

In 1983/84 Tel-Aviv University also prepared a five-year academic development plan which aimed to broaden and deepen already existing fields of teaching and research at the University; to answer teaching needs; to uncover and support areas of excellence in teaching and research at the University; and to answer national needs. The plan focuses on six subjects: computer sciences, energy engineering; cell and molecular biology; the history and philosophy of science and ideas; Arab language and literature; the Wiener Library.

Bar-Ilan University: During the 1983/84 academic year emphasis was placed on the following areas:

Faculty of Jewish Studies: Computerization of the basic Jewish sources and establishment of a centralized data base for research and instruction.

Faculty of Humanities: On-line terminals linked with the University's central computer were installed for departmental use.

Within the framework of the Faculty of Natural Sciences, research program encouragement was given to diverse commercially applicable research projects, many of which received funding from industrial sources in Israel and abroad. Under the auspices of the Department of Mathematics and Computer Sciences, a center for Applied Logics and Artificial Intelligence was established.

The Computer Science program gave evidence of accelerated development. Mini-computer, micro-computer, micro-processors and robotics labs were also set-up. Additional courses were offered and student enrollment increased.

Under the aegis of the Physics Department, an electro-optics teaching laboratory was established.

The University of Haifa: During the past decade the University of Haifa put much effort into promoting, encouraging and developing faculty research. This trend is reflected in the appointment and advancement process in which high standards have been set for the promotion of outstanding faculty members.

A considerable change has taken place in the Graduate Studies Program during the years 1983-1985. The programs are continuously being enhanced; two additional doctorates are now offered in the Education Department and in the Political Science Department. The dean of graduate studies plays an important and active role in upgrading the graduate program.

The Research Authority is actively involved in providing researchers at the University with facilities, support and guidance. A special effort is being made to continue the development of the University's library, in order to uphold its high standard as a research and study aid. An effort is also being made to develop the Computer Center as a scientific tool at the University, to support front-line research, side by side with the library.

Ben-Gurion University of the Negev: In 1983/84 the University engaged in the preparation of a five-year plan for academic development. An appraisal was made of current activities in consideration of the future needs of the University.

Action was taken to strengthen the disciplines concerned with computer science and computer engineering. Two VAX computers were acquired for the Department of Mathematics and Computer Sciences and the Department of Electrical and Computer Engineering.

The Department of Industrial Engineering and Management was granted permission by the Council for Higher Education to award the Ph.D. degree. All the departments of the Faculty of Engineering Sciences may now award this degree.

The Faculty of Humanities and Social Sciences received permission from the Council for Higher Education to award the master's degree in the Departments of Economics, Education, Geography and History and to begin a four-year program of studies towards the bachelor's degree in economics-management.

The Council for Higher Education has granted the Faculty of Health Sciences permission to award the degree of Bachelor of Nursing to the graduates of its nursing track.

In 1983/84 the activity of the Ben-Gurion Research Institute in Sede Boqer was formalized and a permanent budget was arranged for the Institute with the participation of the Planning and Grants Committee. The Institute houses a treasure of original documents which afford historic documentation for the study of the roots of Zionism, the foundations of the establishment of the State of Israel and David Ben-Gurion himself.

Interdisciplinary research activity has been expanded, as exemplified by the establishment, among others, of new research centers in the fields of history of the ancient Negev, the Holocaust and redemption, salinity, education leadership, computer sciences and medical ethics.

The Weizmann Institute of Science: The Institute's research in the life sciences is mainly concerned with the cellular and molecular mechanisms that underlie processes taking place in biological cells and systems. The emphasis is on research with biomedical applications, including the investigation of cancer, autoimmune diseases, aging, nervous system disorders, parasitic diseases, etc. In the field of biotechnology, methods have been developed for extracting chemicals from algae and for isolating compounds with medicinal potential from tissue cultures.

In the field of physics, cooperation with accelerator laboratories in Europe and the US on multi-national projects has been stepped up. In addition, a prototype of particle counters for use in these experiments has been built. A cryogenic accelerator, which increases the energy of heavy ion beams produced by the Institute's Pelletron Accelerator, has been designed, built and installed.

In mathematics, the computer sciences group is working on artificial intelligence, on the development of next generation computers in cooperation with institutions in the US and Japan, improving crystallographic research methods, and on developing advanced software systems to aid Israeli industry.

In the Faculty of Chemistry, methods have been developed for selective formation of crystals with optical activity, research has continued on the isolation of natural materials and the development of pharmaceuticals, and there have been studies on theoretical and experimental chemistry, on understanding the mechanism of chemical reactions, chaotic processes, etc.

Efforts are being made to increase cooperation with science-based industry in Israel, cooperation that is reflected in joint projects, patents, consultation and the development of processes with economic applications.

Last year there was an increase in the number of applications for studying the life sciences and mathematics (mainly computer sciences) at the Feinberg Graduate School.

Everyman's (Open) University: In 1983 and 1984 Everyman's University completed the development of 30 courses, thus bringing the total number of available courses to 140. Eighty more courses are currently under development, with preference given to such subjects as computer sciences, economics and administration.

In the course of 1983/84 work was begun in connection with the establishment of the School of Technology for the training of practical engineers and technicians through distance learning. The project is financed by the Rothschild Foundation and the Barecha Foundation.

Everyman's University studies for an academic degree were introduced at the Achva and Ramat Hanegev Colleges.

In addition to research carried out by EU faculty members in their fields of expertise, some of them also conducted studies on the specific teaching methods practiced by EU, notably the development and instruction courses.

The Jerusalem Rubin Academy of Music and Dance: The Academy trains musicians, composers, conductors, dancers, choreographers and music and dance teachers.

The Academy has four departments: Department of Performing Arts; Department of Composition, Conducting and Theory; Department of Music Education; Department of Dance and Movement.

The Academy is preparing for an important step in its development - moving to expanded facilities at the Givat Ram campus of the Hebrew University of Jerusalem. The new building will have sufficient practice rooms for both individual lessons and student practice.

Bezalel, Academy of Arts and Design, Jerusalem: In 1984 the status of Bezalel Academy changed from a governmental body to an independent institution (Amutah) similar to that of the other institutions of higher education in Israel.

Special efforts were invested in fostering the inter-departmental activities, preparation of joint programs between the various departments and strengthening of interdisciplinary subjects.

The Department of Environmental and Industrial Design was separated into two independent departments.

The design departments (ceramics, industrial, graphic and gold and silversmithing) indicated a clear trend of cooperation with the local industry for the advancement of design skills. The Academy established a subsidiary company for research and development. Its main task is to deal with the visual design of products of industry and research.

Bezalel's main target for the future is to encompass all areas of visual art and design, creating at the same time a broad array of projects to be coordinated with other institutions.

Jerusalem College of Technology: The College succeeded in increasing its enrollment significantly in the academic year 1983/84 and is altogether in a state of rapid development.

The areas of specialization of the College are applied physics, electronics and computer science. There is also a science-teaching department. The engineering studies are combined with Jewish studies.

Every student must complete an independent engineering project as an integral part of his course of studies in preparation for his future professional activity.

Research activities at the College are concentrated in electronics communication, information systems, image processing, micro-lithography, fiber-optic sensors, robotics command and control, and real-time programing.

Shenkar - College of Textile Technology and Fashion: In view of the increasing application of high performance textiles in the fields of civil engineering, transportation, defense and medicine, this subject was added to the curriculum of the department of textile chemistry in 1984.

R and D activities increased considerably as a result of grants received from industry and from other sources in Israel and abroad. Main fields of research were: automation in sewing; prevention of stickiness in cotton; clothing and accessories for the disabled; comfort and heat protection in clothing; development of special textile structures; development of computerized self-study courses.

* * *

Regional Colleges

The regional colleges provide academic courses of study for which universities are responsible academically. The academic responsibility is extended to these courses of study in order to make higher education more accessable to broader segments of the population:

- the teaching staff is part of the university staff;
- the program of study is determined by the university;
- admission requirements are determined by the university;
- study requirements are the same as those of the university in the same field.

The following regional colleges maintained academic courses in 1983/84:

1. The S. Sapir Regional College of the Negev (academic responsibility of Ben-Gurion University of the Negev);
2. The Emek Yezrael Regional College "Ohel Sarah" (academic responsibility of the University of Haifa);
3. The Tel-Hai Rodman Regional College (academic responsibility of the University of Haifa);
4. The Alperin Regional College of the Jordan Valley (academic responsibility of Bar-Ilan University);
5. The Menashe Regional College (academic responsibility of Tel-Aviv University - a few courses only);
6. The Municipal College of Eilat (academic responsibility of Ben-Gurion University of the Negev);
7. The Achva College (academic responsibility of Everyman's (Open) University);
8. Ramat Hanegev College (academic responsibility of Everyman's (Open) University.

The regional colleges are funded by the Ministry of Education and Culture and from other sources. The PGC supports the following:

a. the fostering of local teaching staffs whose primary employment is in the regional college and who will further the interests of the college and the community;
b. assistance with the colleges' overhead and administrative expenses and the wages of the academic coordinator.

In 1983/84 the PGC allocated IS 12 million to these colleges. A sub-committee of the Council for Higher Education determines the distribution of the allocation.

C. THE PGC'S MAIN SPHERES OF ACTIVITY

Planning

The basis for long-term planning in 1983/84 was the multi-year program published in 1982/83, namely "The Higher Education System in Israel - Guidelines on the Development of the System and its Planning for 1988 with a First Glance at 1995". It includes data on the development of higher education in the past decade, its present situation, forecasts of student numbers and the country's needs for academic manpower in various professions, conclusions, decisions and lines of action over the coming five years. The provisional findings of the program are:

Students:

- By 1988 there will be some 70,000 students in the universities, an increase of 12% over 1983. All these students can be absorbed in existing universities; until the end of the 80's there is no need for any new university.
- The growth rate in the different universities should not be uniform: it should be faster in Ben-Gurion University, the Hebrew University and the Technion and slower in Tel-Aviv and Bar-Ilan Universities.
- Existing university faculties fulfill the requirements of the State and the economy until 1988. No new faculty is forecast. There is room for additional units at the departmental level or lower and some existing units can be expanded to permit studies for higher degrees.
- No effort must be spared to increase the number of Jewish students from abroad coming to study in Israeli universities.
- The pre-academic preparatory courses must be expanded to facilitate access to university studies for the widest possible range of the population.
- By the year 1995, there will be some 85,000 students in the universities. Preparations for significant expansion, and large

investments, in existing universities or the establishment of new institutions is thus essential. Decisions must be made in the next 2-3 years.

University staffs and the teacher/student ratio:

- Between 1973/74 and 1982/83 the number of students in the universities increased by about 30%. In the same period academic staff in the universities decreased by about 3% and administrative staff by about 11%. The teacher/student ratio was satisfactory at the end of the 70's but is by now at a very alarming level.
- By 1987/88 there should be an increase of 12-20% in the academic staffs of the universities in order to maintain the minimum necessary ratio of students to teachers.

The higher education budget:

- Developments in government allocations to higher education and increases in expenditures on wages brought about a decrease, in real terms, on expenditures other than wages, of about 26% between 1973/74 and 1982/83. Resources intended for scientific equipment, libraries, basic research and maintenance were most severely affected. In all these areas the "danger line" has been crossed.
- In view of the severe cutbacks in allocations for the above, expenditures other than on wages should return by 1987/88 to their level, in real terms, of 10 years ago. They should represent approximately 30% of the universities' budgets.
- Basic research in the universities should receive a larger allocation. This should be accomplished by increasing government research funds and by increasing internal university resources allocated to basic research.
- In order to fulfill these requirements and enlarge the academic staffs, the higher education budget must increase in real terms by at least 3%, and preferably 6%, a year. An increase of 3% will prevent further deterioration but will not improve the situation.

Construction and development:

- The extent of built-up areas in the higher education system is satisfactory. Some institutions have reserve space that allows for the admission of additional students or the expansion of various activities. However, some institutions and some fields of study lack sufficient space.
- The building program of the universities must allow for controlled development of new construction and adaptations and renovations in existing structures. Government development budgets, which are an essential part of investments in construction, must be sufficient for enlarging the built-up areas by about 1% a year and for a reasonable amount of adaptations and renovations. Unfortunately, their level has remained equal to that of 1981/82.

Inter-university cooperation:

- There should be more inter-university cooperation in various fields such as unified entrance examinations, computers, inter-library cooperation and joint purchasing.

The structure of undergraduate studies:

- The structure of the undergraduate university curriculum should be reviewed. The possibility of expanding general or inter-disciplinary studies should be examined as well as the length of undergraduate studies, new technological teaching aids and the study framework for older students coming for a "second round of studies".

The priorities of higher education:

- Engineering and scientific subjects vital to high-tech industries must be at the top of higher education's list of priorities for the coming five years. Foremost among them are electronics, computers, robotics, electro-optics, biotechnology and genetic engineering. The growth rate of aeronautical engineering and nuclear engineering depends on the development of important national projects such as the "Lavie" airplane and a nuclear power station. Manpower shortages are forecast for the fields of

electronic engineering, computer engineering and computer sciences: there should be an increase in the number of students in these fields.

- Academic and technical staffs in faculties dealing with electronics and computer engineering must be significantly enlarged. The infrastructure of these faculties, including scientific equipment and computers, must be improved and floor-space expanded. In the natural science faculties, excluding computer sciences, there is room in all the universities for the admission of additional students without increasing academic staff or floor-space.
- In the next five years a balance is predicted between supply of and demand for academically trained manpower.

Implementation of long-term planning: Despite the over-all reduction in resources available to the PGC, there was an increase in earmarked allocations and allocations for special subjects.

A special fund, supported by the electronics industry, the PGC and the Ministry of Science and Development, was initiated in 1983/84 with the aim of encouraging young lecturers in electronics and computers to join the academic staffs of the universities.

At the end of 1983/84 the PGC began discussions on a proposal by the Electronics Industry Association to inaugerate a special study program for practical (non-academic) engineers, lasting six semesters in two years, at the end of which they would receive the degree of electronics engineer.

Statistics

Data collection and processing by the Central Bureau of Statistics: Some of the statistical data are produced by the PGC staff but most are collected and processed by the Central Bureau of Statistics at the PGC's request. The Central Bureau of Statistics collects data on the following aspects of higher education:

- students, graduates, fields of study, etc. in universities and other post-secondary education;
- research;
- data and characteristics of academics in the population, including employment characteristics in the various sectors of the economy;
- employment prospects of academics;
- potential demand for higher education and particular fields of study.

This year statistical reports were published, as in every year, on candidates, students and recipients of degrees in universities and other post-secondary institutions of higher education.

Manpower in the universities: A comprehensive survey was carried out on academic, technical and administrative manpower in the universities in the 1981/82 academic year. This survey is a follow-up to a similar survey relating to 1978/79 commissioned by the PGC, and several smaller surveys relating to 1976/77 and 1979/80 carried out by the Central Bureau of Statistics.

Since wages represent the largest single expenditure of the institutions of higher education, this survey is important for the establishment of a data bank vital for reliable budgeting and efficient planning of higher education.

In 1983/84 the following four sections of those planned for the survey were completed:

- the total number of active staff employed on a monthly basis;
- employees on a monthly basis according to the budgetary source of their employment;
- academic staff according to types of appointment;
- staff in the technical and administrative pay-scales according to rank.

The Ordinary Budget

Expenditures and sources of income: The ordinary budget of the institutions of higher education is the basis for their current activities in teaching and research. The institutions also base other activities on the ordinary budget, such as research and special study programs financed from closed budgetary frameworks (mostly from abroad).

In 1983/84 total expenditures of the institutions in the ordinary budget amounted to IS 76,685 million at current prices[1] (see Appendices 5 and 6).

Expenditures covered by the ordinary budget include: wages and related expenses; purchase of scientific and other equipment, books, periodicals, materials and expendable supplies; routine maintenance and repairs and renovations in existing buildings and infrastructure systems; student assistance and services.

These activities were financed from the following sources:

- the PGC's direct allocation - IS 36,622.5 million - 47.8%
- tuition fees - IS 3,290.4 million - 4.3%
- donations - IS 5,944.0 million - 7.7%
- miscellaneous[2] - IS 30,828.1 million - 40.2%

Sources of the ordinary budget of the institutions of higher education: The PGC is authorized to submit proposals for the budgetary framework for higher education to the Government and to allocate the approved budgets to the institutions of higher education.

The largest share of the budget goes to direct allocations to the ordinary budgets of the institutions of higher education, which are free to manage their affairs, within their budgets, as they see fit, as set forth in the Council for Higher Education Law.

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1 Equivalent to approximately US$ 420 million. Not final - according to reports of implementation.

2 Including the PGC's special and earmarked allocations and deficit financing.

In 1983/84 the PGC's allocations, amounting to IS 41,811.2 million, were as follows: (a detailed list appears in Appendix 7)

- direct allocations to universities - IS 35,595.0 million - 86.7%
- direct allocations to other institutions of higher education - IS 1,027.5 million - 2.4%
- earmarked allocations for research and special subjects (Yigal Allon Fellowships, equipment, research, matching allocations, aid to students, etc.) - IS 5,065.4 million - 10.6%
- PGC's operating budget - IS 123.3 million - 0.3%

The direct allocation: The PGC's direct allocation represents the major component of the income of the institutions of higher education, despite the decrease, relatively and in recent years in real terms also, in the share of this component.

In 1983/84 the process of restricting public budgets available to higher education continued. Current expenses grew and the institutions were not able to accomodate themselves to a reduced level of income or to create alternative sources of income.

The crisis in higher education, which was felt already in 1982/83, deepened in the year under review. Measures were taken to alleviate the crisis but they were not sufficient to prevent it. This was due, among other reasons, to the following:

- the Government continued to cut its allocations to higher education;
- the Government brought about the erosion of the allocations to higher education by not adequately adjusting them to inflation;
- delays by the Ministry of Finance in transferring allocations to the institutions of higher education forced them to search for interim financing, with the threat of possible closure hanging over them.

Deficits and loans increased the burden on the institutions and forced the PGC to work under new conditions, contrary to its principles. Instead of planning for the future, the PGC had to deal with current problems and help the institutions adapt to the new situation.

The reduction in government allocations on the one hand (without any available alternative source of income) and the increase in the relative share of expenditures on wages on the other hand, forced the PGC to involve itself in wage and labor agreements.

Income from tuition fees: The Government determines tuition fees.

In 1981/82, the last year in which tuition fees were determined in accordance with the decisions of the "Navon Committee", a new public committee was appointed to determine tuition fees from 1982/83 onwards and a method for updating them. This committee, chaired by Deputy Minister Moshe Katzav, decided on an increase in tuition fees, to be linked to the Consumer Price Index, in order to preserve their real value. In addition, the committee decided that tuition fees should be uniform in all institutions of higher education, for all fields of study and for all degree levels. The decisions of the "Katzav Committee" were to remain in force for five years, until the end of the 1986/87 academic year.

Despite the linkage of tuition fees to the Consumer Price Index, in the first year of the implementation of the "Katzav Committee" decisions the relative weight of tuition fees in the total income of the institutions began to decline. At the beginning of the 1982/83 academic year, income from tuition fees was 9.4% of the total income, but by the end of the year this percentage had decreased to only about 7%. In the budget frameworks presented at the beginning of 1983/84 income from tuition fees was expected to reach 8.3% of total income. However, by the end of the year it was apparent that this percentage would only be 5%. This reduction in the relative weight of tuition fees in total income stemmed, inter alia, from the erosion

of their real value due to the method of collecting tuition fees, which did not keep pace with inflation.

In the middle of 1983/84 discussion began with students on the possibility of raising tuition fees, both to make up for erosion and to raise them in real terms. The discussions were not concluded and the Government did not make any decision regarding tuition fees in this year.

Income from donations: Most donations come from abroad. Direct income from donations from abroad amounted to IS 8,944 million in 1983/84. Additional donations were directed to endowment funds and development budgets.

Other income: This category includes:

- participation by government ministries and other institutions in various programs;
- sale of special services;
- returns on investments;
- PGC allocations earmarked for special purposes;
- deficits (the difference between actual expenditures and resources available to the system).

Wages: The weight of the wage component in the budgets of the institutions on the one hand and their organizational and legal structure on the other, obligated the PGC to take upon itself the coordination of wages and labor agreements, without, however, impinging upon the institutions' autonomy.

In 1983/84 the PGC devoted its attention to wages, implementing government decisions on the subject as set forth in the 1983/84 budget law.

The PGC dealt with the following:

a. final implementation of the 1982-1984 wage agreement with the academic staffs (following upon a court ruling);

b. coordination and implementation of procedures for granting research increments for senior academic staff in the universities;

c. wage concessions by academic staffs.

In November 1983, after the higher education budget had been determined, the Government decided upon a further cut in the budget, including cuts in the budget for 1983/84. The decision on budget cuts included an order to reduce the wages of all employees whose wages derive from the State budget. This order could not apply to the academic staffs due to their wage structure and conditions of employment. However, in order to comply with the government decision and to enable the institutions to function within their restricted budgets, the academic staffs agreed voluntarily to a temporary reduction in their wages.

On June 10, 1984 an agreement was signed, reducing the wages of senior academic staff by 6% and those of junior staff by 3%, beginning with the June 1984 salary. According to this agreement, the erosion of academic staff wages as compared to those of certain public sector employees would be reviewed in the middle of 1985 and wages increased if justified, with the Government undertaking to cover the cost of this increase.

d. irregular wages and employment conditions in the institutions of higher education.

The Development Budget

Construction program: Construction in the institutions of higher education in 1983/84 was limited in scope and was confined to a small number of projects.

All construction was within the framework of the general development plan for 1981/82 - 1987/88 which was agreed upon between the PGC and the institutions of higher education and the PGC and the Ministry of Finance.

This multi-year plan encompasses 114,000 square meters of construction, which will be financed partly by the PGC. It is composed of projects approved by the PGC from among plans totalling about 300,000 square meters proposed by the institutions. The approved plans represent an increase of about 8% over the present built-up area, or about 1% a year until the end of the decade.

Projects included in the plan are intended to assist in the development of fields with national priority, such as engineering, especially electrical engineering and electronics, and dentistry, or to alleviate pressing shortages of space.

The PGC's participation in each of the projects is pre-determined according to set tariffs which take into account the urgency of the projects, the total cost of the investment and the resources available from donations. The PGC's participation is usually up to a third of the cost and in special cases may be up to half the cost.

As part of the multi-year development plan the PGC also intended to devote resources to participation in renovations and adaptations (beyond routine repairs and maintenance which are financed from the ordinary budget) of aging buildings and systems and in order to adapt existing structures to changing uses instead of new construction. Several projects of this nature were carried out in 1983/84 at a total cost of about IS 700 million (at current prices), with the PGC participating in about 50% of the costs.

The multi-year plan, which was approved in principle by the Ministry of Finance, was based on the assumption that the Israeli Shekel equivalent of about $10 million would be allocated yearly. However, due to budgetary cutbacks, the sum available to the PGC for implementing

the multi-year plan was equivalent to only about $7 million. In 1982/83 the amount was also about 20% less than anticipated. As a result, implementation of the plan was slowed down and some approved projects were postponed.

Apart from the agreed multi-year plan, the universities could request the PGC's approval for additional essential projects on condition that they were financed in their entirety, including maintenance costs, from donations, without the participation of the PGC. Each request was examined from four aspects: the requirements of the university; the requirements of society and the economy; the total investment involved including maintenance costs and the availability of resources. In 1983/84 the PGC approved the following: student dormitories in the Technion, sports facilities in the Technion and Ben-Gurion University of the Negev and an installation for solar energy research in the Weizmann Institute of Science.

In 1983/84 the PGC contributed to the solution of the "housing crisis" facing the Jerusalem Rubin Academy of Music and Dance and to the problem of the dispersal of Bezalel - Academy of Arts and Design, Jerusalem in different buildings throughout the city. The Academy of Music will move to the Givat Ram campus of the Hebrew University of Jerusalem and Bezalel to the Mt. Scopus campus of the same university.

Finances: Total investment in construction in the higher education system in 1983/84 amounted to approximately IS 5,700 million, of this IS 5,600 million in the universities. The PGC's participation in development budgets amounted to IS 1,466 million, of this IS 1,360 million for the universities, mostly for projects included in the multi-year plan but also for the completion of participation in projects carried out in previous years (primarily in the Mt. Scopus campus of the Hebrew University of Jerusalem).

Data on actual investments and government participation are presented in Appendix 8.

Investments in construction in the institutions of higher education have been steadily declining in the past decade: in 1983/84 they were only 37% of their value in 1973/74. While at the beginning of the 70's the development budget was about 25% of the total higher education budget, in 1983/84 it was only about 7%.

In this same period the PGC's participation in development budgets of the institutions of higher education diminished even more rapidly. In 1983/84 it was 18% of what it was in 1973/74: at that time PGC participation was about 50% of total investments while in 1983/84 it was only 20%; in 1973/74 PGC participation in development budgets was about 16% of total PGC participation in higher education budgets but in the year under review the percentage was only 3%. (See Appendix 9).

During this decade changes have occurred in the apportionment of the development budget between the different institutions, both in total investments and PGC participation, according to changes in emphasis and priorities.

D. OTHER SPHERES OF ACTIVITY

Matching Allocations to Endowment Funds

Matching allocations are granted in order to encourage the accumulation of donations in endowment funds, the fruits of which are added to the current budgets of the institutions of higher education. These allocations had their beginning in "historical" obligations by Ministers of Finance in the period preceding the PGC's establishment. In recent years, less money from donations is needed for construction, while at the same time more is needed for operating expenses. Accordingly, the PGC decided to encourage the accumulation of donations

to endowment funds. The fruits of these funds are devoted to financing certain specific activities in the current budget of the institutions of higher education. The principal of the fund remains invested.

Beginning with 1982/83 a new method for determining matching allocations was implemented, the main features of which are:

- Funds eligible for matching allocations are endowment funds whose sources are donations and the purposes of which are: encouraging research, provision of chairs, recruiting academic staff, purchase of books and periodicals, scholarships and loans to students and maintenance of buildings and installations;
- Funds eligible for matching must be deposited with an Israeli bank or with the Accountant-General and be under the control of the institution concerned;
- Only the fruits of the fund must be used;
- The annual matching allocation is 7% of the total value of an institution's endowment funds;
- The institution's income from the fruits of the invested endowment funds and the matching allocations accruing to them are to be included in its annual budget.

The total value of all eligible funds as of the end of 1982/83 (30.9.1983) was IS 18,860 million (about $300 million) and served as the basis for computing the matching allocation for 1983/84. The PGC's matching allocation in 1983/84 amounted to approximately IS 1,363 million. (See Appendix 10).

A sub-committee of the PGC determines policy regarding matching allocations.

The PGC asked the Ministry of Finance to recognise the importance of encouraging the universities to enlarge their endowment funds and encouraging the various "Friends" organizations abroad to transfer

their funds to Israel. This would reduce the institutions' dependence on government allocations and, at the same time, increase the country's foreign currency reserves. The PGC therefore also requested the Ministry of Finance to appropriate special funds, apart from the higher education budget, for matching allocations to endowment funds.

Encouraging Research and Excellence

The largest part of the PGC's allocation to the ordinary budgets of the universities is in the form of a global allocation to finance their activities including teaching, study and research.

Research activity in the universities is generally estimated to be 50% of their total activity. Universities carry out about 30% of all research and development in Israel. About 45% of the civilian research and development in the fields of natural sciences, medicine and engineering is carried out by the universities while in the humanities and social sciences they carry out almost all the research in the country.

Research in the universities has increasingly been affected adversely by the budget cuts during the past decade. Budgets for academic units, maintenance of scientific equipment, purchase of new scientific research equipment and computers have all declined recently. The accumulated effects of the budget cuts on research activities together with the shortage of positions open to young researchers are a stumbling block for research activity in the future. The PGC therefore takes special measures to encourage research and excellence.

Allocations for scientific equipment: In 1983/84 the PGC continued, for the sixth year, to grant special allocations for the purchase of scientific research equipment. The allocation is intended to encourage excellence and maintenance of the high scientific level of research teams including research for the development of new or vital fields of research and the absorption of advanced experimental methods.

The allocation is intended for the purchase of new equipment or the replacement of worn out or outdated equipment, costing at least $25,000 per item or for a particular set of equipment. Requests are presented by the universities according to the requirements of their research teams and their long-range needs. The PGC's participation is 50-100% of the cost of each item. Special committees for each scientific field determine the allocations.

$2.2 million were allocated by the PGC for the purchase of scientific equipment costing about $4.5 million.

Yigal Allon Fellowships for Outstanding Young Researchers: These fellowships are intended to provide outstanding young researchers with initial full-time academic appointments as "lecturer" or "senior lecturer" in the universities.

Approximately 20 fellowships are awarded each year, each equivalent to the average salary of a lecturer or senior lecturer. Competition for the fellowships is on a personal and non-institutional basis. The university undertakes to employ the fellow and include his salary in its budget at the end of the three years.

23 fellowships were awarded this, the sixth year of the Yigal Allon Fellowships: 6 in the humanities, 5 in the social sciences, 8 in the exact sciences and 4 in the life sciences. IS 180.1 million were transferred to the universities to cover the expenses of 49 fellows from three different three-year cycles.

Research funds: The PGC directs approximately 2% of the total government participation in the higher education budget to funds which finance research projects in the universities:

The Basic Research Fund: This fund is financed entirely by the PGC. It is administered by the Israel Academy of Sciences and Humanities. The fund has a council and an administration, including three representatives of the PGC.

476 applications for grants were made in 1983/84, of which approximately 25 were approved (compared to 411 requests, of which 38% were approved, in the previous year).

IS 185.4 million were awarded as research grants, about half of which went to new research projects and half to continuing projects. (See Appendix 11).

The PGC allocated IS 150 million to the fund.

As of 1983/84 the fund will also support three-year research projects. It also awards grants for the purchase of scientific equipment costing less than $25,000.

The joint Atomic Energy Commission - PGC Research Fund: The purpose of this fund is to encourage cooperation between the AEC and the institutions of higher education and to expand the scientific and technological infrastructure available to the Commission.

Research projects must be in the field of activity of the AEC and must be carried out in the institutions of higher education by researchers who have close contact with the AEC.

The PGC's participation in this fund in 1983/84 amounted to IS 26 million.

The joint PGC - Ministry of Defense Research Fund: The purposes of this fund are:

- expansion of the scientific - technological infrastructure in the universities available to the defense system;
- utilization of the scientific potential of the institutions of higher education, where the advancement of the researcher and his institution and the needs of security coincide;
- the fostering and advancement of young researchers or researchers returning from abroad in relevant subjects in the universities, or their retraining for employment in high-tech industries.

Research projects are chosen by a professional committee and are carried out by researchers in the universities.

The PGC's participation in the fund in 1983/84 amounted to IS 46 million.

The Fund to Encourage Technological Education in Electronics and Computers: This fund was established in 1983/84 to encourage young lecturers in the field of electronics and computers to work in the universities despite better financial opportunities open to them in industry. The electronics industry, the PGC and the Ministry of Science are partners to this fund.

The electronics industry's annual contribution to the fund is equivalent to $100 times the number of engineers and computer specialists employed in each factory.

Each new lecturer in electronics or computers joining a university staff receives a special grant equal to $6000 per year for three years.

The fund is administered by a non-profit making organization whose members include six directors-general of industrial plants and the Chairman of the PGC. Representatives of government ministries are permanent observers at meetings of the administration.

The PGC's contribution to the fund in 1983/84 was $75,000.

The Einstein Fund: This is a fund of the Israel Academy of Sciences and Humanities the purpose of which is to invite eminent academics from abroad to visit Israel for periods of from six months to a year.

In 1983/84 the PGC's participation in the fund was $50,000.

In February 1984 the PGC decided to reduce its participation in the fund to 50% of what it was in 1983/84. By 1985/86 the PGC's support for the fund will cease entirely.

The United States - Israel Education Fund: This fund, also known as the "Fulbright Fund", is a bi-national fund based on an agreement between the two governments signed in 1956. The fund finances each year visits to Israeli universities by US lecturers, researchers and students and also awards scholarships to Israeli students and post-doctoral researchers who wish to study in the US.

The fund's annual budget - $650,000 in 1984 - is financed for the most part by the US Government. Since 1967 the Government of Israel participates in the fund through the Ministry for Foreign Affairs and the PGC.

The PGC's participation in the fund in 1983/84 was $15,000 (as was the participation of the Ministry for Foreign Affairs).

Research increments: As a result of wage agreements with the academic staffs, new rules were drawn up for granting research increments to university researchers. These rules were applied initially in 1983/84. The new rules state that researchers who obtain research grants from an outside source are entitled to wage increments according to the scope of the financed research project. Researchers who are employed solely in one institution are entitled to a smaller research increment.

The research increments are financed, in part, by the organisations commissioning the research project, and by the PGC. The PGC's participation is financed by a small wage concession on the part of the academic staffs, in addition to the 6% wage concession in effect since the middle of 1983/84.

The detailed set of rules for the granting of research increments was confirmed by the Committee of Heads of Universities, with the approval of the PGC, the Director of Wages in the Ministry of Finance and the academic staff coordinating committee.

The PGC allocated in 1983/84 IS 1,005 million to research increments.

Encouraging Inter-University Cooperation

One of the central tasks of the PGC is to encourage coordination and cooperation between the institutions of higher education. Efficiency in the system and the promotion of subjects particularly affected by budget cuts are important in the long-range view of the higher education system.

Computers: In 1983/84, as in previous years, the PGC was active in the development of university computing centers and allocated funds to them, within the framework of the multi-year acquisitions program recommended by the PGC's Sub-committee for Computers. In 1983/84 $1.2 million were budgeted for this purpose, but only about $1 million were, in fact, allocated.

The Inter-University Computing Center (IUCC), established in order to increase inter-university cooperation, was completed in 1983/84. An information network connecting university computers was set up by the IUCC. This enables communication with foreign countries, through the IBM BARN network. The IUCC's activities include: coordinating joint purchasing of computer software and hardware, thus effecting economy, and inter-university cooperation in the computerization of administration, budgets, wages, etc. For this purpose a survey of university administrative information systems was carried out. Scientific needs that might require the acquisition of a super-computer were also investigated. The IUCC encourages the mutual utilization of university computing power. The IUCC's budget for 1983/84 was $52,000.

The forum of university computing center directors convened monthly in 1983/84. The forum discusses coordination between computing centers and makes recommendations to the IUCC administration. The PGC, on the recommendation of the forum, decided that each institution should make 5% of its computing potential available to other institutions free of charge for a year, and allow other institutions to use its software at a cost of 25% of its price.

University libraries: Each year the PGC makes a special allocation for the purchase of books and periodicals by university libraries. Since it is intended to encourage universities to purchase books and periodicals, the amount of the allocation depends upon the sum each institution devoted to this purpose in the previous year from its own resources. The PGC's allocation for the purchase of books and periodicals was IS 208.8 million in 1983/84.

The PGC's Sub-committee for University Libraries determines the distribution of the allocation each year. It also tries to find ways of fostering inter-library cooperation and formulating joint programs to increase efficiency and improve service.

In 1983/84 the Sub-committee dealt with two central issues:

a. The preparation of the Union List of Serials in Israel and inter-library loans. The PGC allocated IS 14.7 million for this purpose in 1983/84.

b. The formation of an inter-university library network. This network, based on the Hebrew University's "Aleph" system, will connect library computers. At the end of 1983/84 it was decided to appoint a steering committee for the inter-university library network. The PGC's participation in the network was $292,000.

The Institute for Desert Research in Sde Boker: In order to encourage the Institute's development as a national center for desert research, the PGC appointed an inter-university academic committee to follow its activities. The committee's functions are to initiate and encourage cooperation between the Institute, which is part of Ben-Gurion University of the Negev, and the institutions of higher education.

Cooperation is in the following fields:

a. research projects carried out jointly by researchers from the Institute and other universities;

b. granting some Institute researchers an additional appointment in another university;
c. holding national and international meetings on desert research;
d. providing courses for students of other universities.

The PGC contributes to the Institute's budget through its direct allocation to the ordinary budget of Ben-Gurion University of the Negev.

Natural science collections: In 1983/84 the PGC allocated IS 4 million for the preservation of existing zoological, botanical and geological collections primarily in the Hebrew University of Jerusalem and Tel-Aviv University, and inter-institution cooperation in this area. In March 1984 the PGC decided to transfer its responsibility to the Israel Academy of Sciences and Humanities. The Academy operates through an "Association for National Collections in the Natural Sciences", which is, in fact, a continuation of a former PGC committee.

The Marine Biology Laboratory in Eilat: In recent years the PGC has supported inter-institution activities in oceanography. These include the activities of the Heinz Steinitz Marine Biology Laboratory at Eilat, which is part of the Hebrew University of Jerusalem, and workshops in oceanography.

IS 76.6 million were allocated in 1983/84 to the Laboratory to cover previous obligations and current activities.

In view of the national importance of the existence of a laboratory and marine activities in the Red Sea, the PGC decided to support the conversion of the laboratory into an inter-university institute and to contribute to the financing of its activities.

The Israeli Academic Center in Cairo: The Center was established in 1981/82 for the following purposes:

- to serve the needs of Israeli researchers in Cairo;
- to increase cooperation between researchers from both countries in all fields.

Activities in 1983/84:

- approximately 50 Israeli researchers visited the Center and were aided by it;
- fellowships were awarded to Israeli researchers to enable them to carry out research projects in Egypt for periods of 4-8 months;
- series of lectures and seminars were held;
- the library was enlarged. Assistance was given to Ain Shams University in purchasing books in Israel.

The Center is operated by the Israel Academy of Sciences and Humanities and funded by the PGC.

The PGC allocated $262,500 to the Center in 1983/84.

Aid to Students

Students in the higher education system benefit from various forms of assistance during their studies: scholarships and grants, low-interest loans and subsidized services (such as housing, restaurants, health services and sports facilities). Working students are entitled to reductions in income taxes, and students employed by the Government or in the public sector are entitled to a reduction in their work-load.

Approximately 20% of students (and double this percentage among graduate students) received full or partial exemptions from tuition fees.

Aid to students is financed from the following sources:

1. the budgets of the institutions of higher education;
2. external funds.

Assistance for tuition fees: For information on tuition fees, see above, p. 32.

The Katzav Committee that dealt with the support systems for students decided that assistance for tuition fees should be offered to the following groups of students:

a. students from large families who have completed their military service are entitled to grants equal to half of their fees;
b. students from development towns or "rehabilitation neighborhoods" receive standing loans equal to a third of their fees.

Loans for tuition fees are granted from external funds, in particular the Students Loan Fund (see below). In addition, new immigrant students receive scholarships financed by the Ministry for Immigrant Absorption.

Perach (Tutorial Project): Perach is a joint project of the Ministry of Education and Culture, the PGC, the universities and the National Union of Students. Students volunteering to devote four hours a week to acting as tutors to pupils from schools designated by the Ministry of Education and Culture are eligible for scholarships amounting to 60% of their tuition fees.

In 1983/84 10,622 students served as tutors and 238 as coordinators in 321 schools.

The main expenditure of Perach is on scholarships. The PGC finances 90% of the scholarships. The remainder are financed by the universities and from other sources.

Students Loan Fund: The Fund, established in 1964, is a government corporation the members of which are the Government of Israel, the Bank of Israel and six commercial banks. The Government's share in the Fund is included in the higher education budget.

The PGC's allocation to the Fund in 1983/84 was IS 67.9 million. 6,428 requests for loans and 451 grants were approved. 3,125 loans were actually taken out and 436 grants awarded.

Other Subjects

Foreign students: The Steering Committee for Foreign Students is composed of representatives of the universities, the Jewish Agency and the PGC. The purpose of the Committee is to encourage a greater number of Jewish students from abroad to come to study in Israeli universities.

The Steering Committee's activities in 1983/84 included the following:

- academic development of special programs for foreign students;
- scholarships for needy students;
- social and cultural activities;
- publications and information;
- activities on college campuses in the US.

In 1983/84 1,200 foreign students participated in various one-year and one-semester programs in Israeli universities. (See Appendix 12).

Pre-academic preparatory courses: These courses are intended to give a "second chance" to high school graduates to prepare them for university admission. Pre-academic preparatory courses are held in all the universities and some of the regional colleges.

Approximately 2,100 students studied in the pre-academic preparatory courses in the universities. The total number of students in all the courses was 3,000. (See Appendix 13).

Approximately 63% of the students in these courses come from disadvantaged socio-economic backgrounds and are after military service. They have higher education potential and are considered to be "worthy of advancement".

The PGC covers the tuition fees of these students, while the Ministries of Education and Culture and Defense cover their living expenses.

The PGC's allocation in 1983/84 was IS 149.3 million.

A public directorate for the pre-academic preparatory courses, appointed by the Minister of Education and Culture, began to operate in 1983/84.

Peripheral hospitals: The Chairman of the PGC maintained regular contact with the directors of peripheral hospitals and the deans of the schools of medicine on the academic affiliation of those hospital departments distant from the schools of medicine.

The PGC's participation in the cost of a number of academic appointments to schools of medicine for doctors from these hospitals amounted to IS 1.7 million.

Appendix 1

Institutions of Higher Education

A. Universities

1. The Hebrew University of Jerusalem
2. The Technion - Israel Institute of Technology
3. Tel-Aviv University
4. Bar-Ilan University
5. The University of Haifa
6. Ben-Gurion University of the Negev
7. The Weizmann Institute of Science
8. Everyman's (Open) University

B. Other Institutions of Higher Education

9. The Jerusalem Rubin Academy of Music and Dance
10. Bezalel - Academy of Arts and Design, Jerusalem
11. Jerusalem College of Technology
12. Shenkar - College of Textile Technology and Fashion
13. Ruppin Institute of Agriculture (academic course only)
14. The College of Administration (academic course only, licensed but not yet accredited)

C. Teacher Training Colleges

15. Michlala, Jerusalem College for Women
16. The David Yellin Teachers College
17. Beit-Berl Teachers Training College
18. The Zinman College of Physical Education at the Wingate Institute
19. Levinsky Teachers College (licensed but not yet accredited)

Appendix 2 (a)

Students in Universities, 1969/70-1983/84

	1969/70	1979/80	1981/82	1982/83	1983/84
Total	36,239	57,500	60,735	62,365	64,605
Hebrew University of Jerusalem	12,960	14,770	15,300	15,475	16,050
Technion-IIT	6,100	7,940	8,050	8,040	8,270
Tel-Aviv University	8,250	15,130	16,770	17,530	18,390
Bar-Ilan University	4,356	8,670	9,430	9,830	9,970
University of Haifa	2,839	6,190	6,155	6,100	6,465
Ben-Gurion University of the Negev	1,315	4,300	4,570	4,920	4,980
Weizmann Institute of Science	419	500	460	470	480
Total (Percentages)	100.0	100.0	100.0	100.0	100.0
Hebrew University of Jerusalem	35.8	25.7	25.2	24.8	24.8
Technion-IIT	16.8	13.8	13.3	12.9	12.8
Tel-Aviv University	22.8	26.3	27.6	28.1	28.5
Bar-Ilan University	12.0	15.1	15.5	15.8	15.4
University of Haifa	7.8	10.7	10.1	9.8	10.0
Ben-Gurion University of the Negev	3.6	7.5	7.5	7.9	7.7
Weizmann Institute of Science	1.2	0.9	0.8	0.7	0.8

Source: The Central Bureau of Statistics

Appendix 2 (b)

Students in Non-University Institutions of Higher Education - 1982/83, 1983/84

	1982/83		1983/84	
	Total	Of these, first year	Total	Of these, first year
Jerusalem Rubin Academy of Music and Dance	368	147	305	91
Bezalel - Academy of Arts and Design, Jerusalem	584	176	616	174
Jerusalem College of Technology	168	57	215	78
Shenkar - College of Textile Technology and Fashion	271	102	308	86
Ruppin Institute of Agriculture (academic course only - two-year course)	127	85	177	113

Source: The Central Bureau of Statistics

Appendix 3 (a)

Recipients of Degrees in Universities - 1969/70, 1979/80, 1982/83

	1969/70	1979/80	1982/83				
			Total	Bachelor's Degree	Master's Degree	Ph.D.	Diploma
Total	5,566	9,371	9,890	7,124	1,942	335	448*
Institution	- Percentages -						
	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Hebrew University of Jerusalem	47.1	25.6	28.3	24.3	34.9	40.6	31.4
Technion-IIT	18.3	14.4	13.5	13.6	15.0	18.2	2.3
Tel-Aviv University	21.6	26.1	24.6	25.5	29.2	12.8	2.1
Bar-Ilan University	7.6	13.5	13.8	15.0	9.3	8.4	18.2
University of Haifa	3.4	10.8	11.0	13.0	3.9	-	17.4
Ben-Gurion University of the Negev	0.4	8.3	7.6	8.6	4.6	1.8	8.6
Weizmann Institute of Science	1.4	1.3	1.2	-	3.1	18.2	-
Field of Study	- Percentages -						
	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Jewish Studies & Humanities	32.4	29.2	25.7	24.7	14.0	20.0	92.4
Social Sciences	17.6	30.0	29.5	30.8	34.6	8.3	6.8
Law	6.5	3.2	3.9	5.2	0.8	0.9	-
Medicine & Paramedical Professions	3.2	4.9	7.2	4.6	19.0	2.7	-
Natural Sciences and Mathematics	21.9	14.3	14.8	13.0	17.6	55.3	0.8
Agriculture	2.7	2.5	3.9	4.3	3.3	3.0	-
Engineering and Architecture	15.7	15.9	15.0	17.4	10.7	9.8	-

* In addition, 261 diplomas were awarded to recipients of degrees.

Source: The Central Bureau of Statistics

Appendix 3 (b)

Recipients of Degrees in Non-University Institutions of Higher Education, 1981/82, 1982/83

	1981/82	1982/83
Jerusalem Rubin Academy of Music and Dance	27	39
Bezalel - Academy of Arts and Design, Jerusalem	102	97
Jerusalem College of Technology	53	30
Shenkar - College of Textile Technology and Fashion*	73	18
Ruppin Institute of Agriculture (academic course only)*	10	30

* Degrees are awarded only every two years.

Source: The Central Bureau of Statistics

Appendix 4 (a)

Active University Staffs* - Annual Average - 1981/82

(Full-Time Positions)

	All the Universities	The Hebrew University of Jerusalem	Technion-IIT	Tel-Aviv University	Bar-Ilan University	University of Haifa	Ben-Gurion University of the Negev	Weizmann Institute of Science
Total Staff	18,176.3	5,518.6	2,917.0	3,987.6	1,410.0	904.4	1,695.6	1,743.1
Teaching and Research Staff - Total	8,112.3	2,330.3	1,228.1	2,162.3	730.4	489.1	795.1	377.0
Senior Academic Staff	4,505.3	1,315.4	651.9	1,008.1	421.2	305.0	457.9	345.8
Junior Academic Staff	1,727.9	488.0	247.4	423.7	245.6	67.7	255.5	-
Medical Doctors	43.2	-	-	43.2	-	-	-	-
Teachers	156.8	41.7	-	46.6	-	42.0	10.0	16.5
Teaching and Research Assistants	1,540.2	485.2	326.8	522.9	63.6	70.0	71.7	-
Other Teaching and Research Staff	138.9	-	2.0	117.8	-	4.4	-	14.7
Technical Staff - Total	3,408.2	785.5	855.8	436.4	95.2	33.9	329.4	872.0
Administrative Staff - Total	6,655.8	2,402.8	833.1	1,388.9	584.4	381.4	571.1	494.1

* Only those employed on a monthly basis.

Appendix 4 (b)

Staff in Non-University Institutions of Higher Education - 1982/83

(Full-Time Positions)

Institution	Total	Academic Staff	Administrative and Technical Staff
Jerusalem Rubin Academy of Music and Dance	86	66	20
Bezalel - Academy of Arts and Design, Jerusalem	160	84	76
Jerusalem College of Technology	66	34	32
Shenkar - College of Textile Technology and Fashion	95	40	55
Ruppin Institute of Agriculture (academic course only)	20	13	7

Source: The Central Bureau of Statistics

Appendix 5

The Ordinary Budget of the Universities - 1982/83, 1983/84

(I8 millions, at current prices)

1982/83[1]	Approved Budget	PGC's Allocation	Fees from Students	Donations	Other Sources[4]
Total	20,413	13,032	1,312	1,182	4,887
Hebrew University of Jerusalem	4,988	3,570	293	345	780
Technion-IIT	3,187	2,240	150	210	587
Tel-Aviv University	4,430	2,890	394	50	1,096
Bar-Ilan University	1,842	1,100	158	33	551
University of Haifa	1,149	710	104	19	316
Ben-Gurion University of the Negev[3]	2,041	1,180	148	103	610
Weizmann Institute of Science	2,420	1,160	-	370	890
Everyman's (Open) University	356	182	65	52	57
Distribution (percentages)	100.0	63.9	6.4	5.8	23.9

1983/84[2]					
Total	74,989	35,595	3,165	5,801	30,428
Hebrew University of Jerusalem	17,240	9,770	970	1,400	5,100
Technion-IIT	12,366	6,050	377	1,000	4,939
Tel-Aviv University	16,699	7,830	391	687	7,791
Bar-Ilan University	6,822	3,010	520	124	3,168
University of Haifa	3,636	1,905	331	38	1,362
Ben-Gurion University of the Negev[3]	7,445	3,330	296	387	3,432
Weizmann Institute of Science	9,358	3,120	-	1,931	4,307
Everyman's (Open) University	1,423	580	280	234	329
Distribution (percentages)	100.0	47.5	4.2	7.7	40.6

[1] According to balance sheets of the institutions, including retroactive and one-time payments (mainly for wage agreements).
[2] According to interim reports.
[3] Including the Institute for Desert Research, the Ben-Gurion Research Institute and the Institute for Applied Research.
[4] Including deficits.

Appendix 6

The Ordinary Budget of the Non-University Institutions of Higher Education - 1982/83, 1983/84

(IS millions, at current prices)

1982/83[1]	Approved Budget	PGC's Allocation	Fees from Students	Donations	Other Sources[3]
Total	405.6	293.6	35.0	26.7	50.3
Jerusalem Rubin Academy of Music and Dance	80.0	60.0	8.7	1.0	10.3
Bezalel - Academy of Arts and Design, Jerusalem	163.6	130.0	12.5	3.5	17.6
Jerusalem College of Technology	92.0	50.0	5.3	19.2	17.5
Shenkar - College of Textile Technology and Fashion[4]	57.0	50.0	2.0	3.0	2.0
Ruppin Institute of Agriculture (academic course only)	13.0	3.6	6.5	-	2.9
Distribution (percentages)	100.0	72.4	8.6	6.6	12.4

1983/84[2]					
Total	1,696.0	1,027.5	125.4	143.0	400.1
Jerusalem Rubin Academy of Music and Dance	255.5	185.0	24.7	8.0	37.8
Bezalel - Academy of Arts and Design, Jerusalem	579.5	440.0	49.5	17.0	73.0
Jerusalem College of Technology	455.0	130.0	14.0	113.0	198.0
Shenkar - College of Textile Technology and Fashion	348.0	260.0	15.2	5.0	67.8
Ruppin Institute of Agriculture (academic course only)	58.0	12.5	22.0	-	23.5
Distribution (percentages)	100.0	60.6	7.4	8.4	23.6

[1] According to balance sheets of the institutions, including retroactive payments (mainly for wage agreements).
[2] According to interim reports.
[3] Including deficits.
[4] Funded by the PGC as of 1.4.1983.

Appendix 7

Implementation of the Higher Education Budget - 1983/84

(IS millions, at current prices)

Total	41,811.2
Direct Allocations	**36,622.5**
Universities	35,595.0
Non-university institutions	1,027.5
Matching Allocations to Endowment Funds	**1,363.1**
Universities	1,356.0
Non-university institutions	7.1
Allocations for Research	**1,782.0**
Allon Fellowships	180.1
Scientific equipment	354.5
Basic Research Fund	150.0
Joint PGC-Ministry of Defense Research Fund	46.0
Joint PGC-Atomic Energy Commission Research Fund	26.0
Fund to Encourage Technological Education in Electronics and Computers	11.6
Einstein Fund	3.5
USA-Israel Education Fund	1.5
Natural science collections	4.0
Research increments b.	346.0
Research increments c.	658.8
Earmarked Allocations	**459.6**
Computer centers	250.8
Purchase of books and periodicals	208.8
Inter-university Activities	**157.2**
Inter-University Computing Center (IUCC)	10.9
Inter-library cooperation and "Aleph" program	69.7
Marine Biology Laboratory in Eilat	76.6
Aid to Students	**612.0**
Perach - Tutorial Project	544.1
Students Loan Fund	67.9
Other Subjects	**691.5**
Pre-academic preparatory courses	149.4
Academic programs in regional colleges	12.0
Ministry of Finance's support for accounting studies	15.5
Clinical appointments in peripheral hospitals	1.7
Israeli Academic Center in Cairo	30.6
Miscellaneous	482.3
PGC's Administrative Budget	**123.3**

Appendix 8

Development Budgets of the Universities - 1982/83, 1983/84

(IS millions, at current prices)

	1982/83		1983/84	
	Actual Investments[1]	PGC's Allocation	Estimated Investments[1]	PGC's Allocation
Total	1,833.8	337.1	5,600.0	1,360.2
Hebrew University of Jerusalem - Total	307.3	86.9	1,100.0	425.7
(Mt. Scopus alone)[2]	(133.8)	(58.9)[4]	(360.0)	(292.7)[4]
Technion-IIT	560.0[3]	43.0	1,800.0[3]	179.0
Tel-Aviv University	215.8	30.0	450.0	224.0
Bar-Ilan University	325.0	57.0	1,000.0	241.0
University of Haifa	50.3	10.0	200.0	22.5
Ben-Gurion University of the Negev - Total	340.4	96.2	850.0	228.0
(Institute for Desert Research alone)[2]	(12.0)	(6.0)	(90.0)	(45.0)
Weizmann Institute of Science	35.0	14.0	200.0	40.0

[1] Source of data - financial reports of the universities, including construction, installations and furniture in new buildings. Does not include basic scientific equipment financed from ordinary budget.

[2] Defined as a project of special national importance.

[3] After deduction of estimated commitments pending.

[4] Including allocations not from the State budget.

Appendix 9

The Development Budget[1] - 1973/74 - 1983/84
(IS millions, at current prices)

	At current prices		At 1983/84 prices[2]	
	Investments	PGC Allocation[3]	Investments	PGC Allocation[3]
1973/74[4]	26.0	13.0	15,320.0	7,618.0
1974/75	31.3	14.1	13,506.2	6,079.7
1975/76	28.5	8.7	9,787.1	3,001.2
1976/77	31.6	12.8[5]	8,448.9	3,442.9[5]
1977/78	50.8	16.7[5]	8,717.0	2,925.8[5]
1978/79	75.8	17.0[6]	7,581.9	1,689.0[6]
1979/80	166.0	44.5[6]	7,464.9	1,996.8[6]
1980/81	393.4	84.3[6]	7,504.6	1,606.4[6]
1981/82	767.5	180.7[6]	6,902.6	1,625.2[6]
1982/83	1,833.8	337.1[6]	7,349.9	1,351.3[6]
1983/84	5,600.0	1,360.2[6]	5,600.0	1,360.2[6]

1 Including Everyman's (Open) University. Does not include the non-university institutions of higher education.

2 Based on the Construction Input Price Index.

3 Does not include loans turned into grants in 1972-1975.

4 Estimate based on average of fiscal years 1973 and 1974.

5 Including special allocations for the payment of loans for past government obligations.

6 Including allocations from outside the State budget for the Mt. Scopus project.

Appendix 10

Matching Allocations to Endowment Funds - 1983/84

(IS thousands)

	Value of the Funds 30.9.1983*	Matching Allocation 1983/84
Total	18,860,640	1,363,149
Hebrew University of Jerusalem	7,239,543	506,768
Technion-IIT	3,323,692	262,274
Tel-Aviv University	3,240,198	240,189
Bar-Ilan University	970,399	68,044
University of Haifa	535,888	37,512
Ben-Gurion University of the Negev	903,379	63,237
Weizmann Institute of Science	2,529,651	177,076
Everyman's (Open) University	12,925	905
Jerusalem Rubin Academy of Music and Dance	22,812	1,597
Bezalel - Academy of Arts and Design, Jerusalem	19,918	1,394
Jerusalem College of Technology	53,395	3,738
Shenkar - College of Textile Technology and Fashion	8,840	415

* On 30.9.1983 US$1 = IS 63.69.

Appendix 11 (a)

New Grants from the Basic Research Fund - 1983/84

(current prices)

	Applications		Approved			Grants (IS millions)	Ratio Grant/ Cost	Percentage by Field
	No.	Cost- (IS millions)	No.	Percen- tage	Cost- (IS millions)			
Total	476	644.1	120	25%	155.2	92.6	60%	100%
Exact Sciences	142	212.0	29	20%	45.7	25.6	56%	28%
Life Sciences	232	332.0	51	22%	71.2	47.2	66%	50%
Applied Infra- structure	24	41.3	5	21%	10.3	4.5	44%	5%
Humanities & Social Sciences	78	58.8	35	46%	28.0	15.3	55%	17%

Source: Israel Academy of Sciences and Humanities

Appendix 11 (b)

Continuing Research Grants from the Basic Research Fund - 1983/84

	Number of Grants	Cost - (IS millions, current prices)	Percentage of Grants by Field
Total	142	90.0	100%
Exact Sciences	41	30.9	34.3%
Life Sciences	53	37.7	41.9%
Applied Infrastructure	15	11.4	12.7%
Humanities and Social Sciences	33	10.0	11.1%

Source: Israel Academy of Sciences and Humanities

Appendix 12

Foreign Students in Universities, 1982/83, 1983/84

One-Year or One-Semester Programs

	1982/83				1983/84			
	Semester A	Semester B	Entire Year	Total	Semester A	Semester B	Entire Year	Total
Total	200	171	672	989	217	272	763	1201
Hebrew University	83	71	427	581	77	111	497	685
Tel-Aviv University	67	42	138	247	85	66	161	312
Bar-Ilan University	-	-	80	80	-	-	80	80
University of Haifa	50	58	27	81	55	95	25	124

Source: Steering Committee for Foreign Students

Appendix 13

Students in Pre-Academic Preparatory Courses - 1983/84

	Total Students	Considered "Worthy of Advancement"
Total	3066	1939 - 63%
At the Universities	2117	1108 - 52%
Hebrew University	459	352
Technion-IIT	614	213
Tel-Aviv University	385	235
Bar-Ilan University	61	61
University of Haifa	325	120
Ben-Gurion University	273	127
At the Regional Colleges	788	673 - 85%
Tel-Hai	272	228
Jordan Valley	100	80
Ohel Sarah	208	195
Sha'ar Hanegev	208	170

Source: Association for the Advancement of Education
Data are for the beginning of the 1983/84 academic year.